WHAT IS CLAIMED IS:

1   1.   A computer implemented method for provisioning broadband service in a

2   Point-to-Point Protocol over Ethernet (PPPoE) network, comprising:

3   randomly choosing a username from a list of usernames stored on a

4   modem;

5   transmitting an authentication request from said modem to a

6   Broadband Remote Access Server (BRAS) over a PPPoE network, where

7   said BRAS is configured to load balance said authentication request between

8   multiple Broadband Service Nodes (BSNs); and

9   receiving authorization from at least one of said multiple BSNs.

1   2.   The method of claim 1, further comprising, prior to said receiving step, the

2   steps of:

3   load balancing said authentication request between said multiple

4   Broadband Service Nodes (BSNs);

5   transmitting said authentication request to one of said multiple BSNs

6   determined by said load balancing.

1   3.   The method of claim 1, further comprising, prior to said transmitting step, the

2   step of establishing a PPPoE session.

1   4.   The method of claim 1, further comprising, prior to said transmitting step, the

2   steps of:

3   requesting only a single identifier from a user of a client computer;

4   receiving said identifier; and

5   storing said identifier.

1   5.   A method of claim 1, wherein said receiving step comprises acquiring at least

2   one temporary dynamic Internet Protocol (IP) address.

1   6.   The method of claim 5, further comprising:

2   transmitting a configuration request to an Internet Service Provider

3   (ISP), where said configuration request is addressed from said dynamic IP

4   address;

5   receiving full configuration details from said ISP, where said full

6   configuration details include a static IP address, and where said full

7   configuration details are addressed to said dynamic IP address; and

8   automatically configuring said modem based on said full configuration

9   details.

1   7.   A system for provisioning broadband service in a Point-to-Point Protocol Over

2   Ethernet (PPPoE) network, comprising:

3   at least one client computer;

4   a Broadband Remote Access Server (BRAS);

5   multiple Broadband Service Nodes (BSNs) coupled to said BRAS;

6   an authentication server coupled to each one of said multiple BSNs;

7   a modem coupled between said client computer and said BRAS, said

8   modem including a memory comprising:

9   a list of usernames;

10   instructions for randomly choosing a username from

11   said list of usernames;

12   instructions for transmitting an authentication request

13   from said modem to said BRAS over a PPPoE network, where

14   said BRAS is configured to load balance said authentication

15   request between said multiple BSNs; and

16   instructions for receiving authorization from at least one

17   of said multiple BSNs.

1   8.   The system of claim 8, further comprising:

2   a Digital Subscriber Line Access Multiplexor (DSLAM) coupled

3   between said modem and said BRAS; and

4   an Asynchronous Transfer Mode (ATM) network coupled between

5   said DSLAM and said BRAS.

1   9.   The system of claim 8, wherein said BSNs are coupled to the Internet.

1   10.   The system of claim 8, wherein said memory further comprises a generic

2   password.

1   11.   The system of claim 8, wherein said BRAS includes a memory comprising:

2   instructions for load balancing said authentication request between

3   said multiple Broadband Service Nodes (BSNs);

4   instructions for transmitting said authentication request to one of said

5   multiple BSNs determined by said load balancing.

1   12.   A computer program product for use in conjunction with a computer system

2   for provisioning broadband service in a Point-to-Point Protocol Over Ethernet

3   (PPPoE) network, the computer program product comprising a computer readable

4   storage and a computer program stored therein, the computer program comprising:

5   instructions for randomly choosing a username from a list of

6   usernames stored on a modem;

7   instructions for transmitting an authentication request from

8   said modem tosaid BRAS over a PPPoE network, where said BRAS

9   is configured to load balance said authentication request between

10   said multiple BSNs; and

11   instructions for receiving authorization from at least one of said

12   multiple BSNs.